

REMARKS

Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks. Claims 1-10 were pending prior to the final Office Action. Claims 11-14 have been added through this Amendment. Therefore, claims 1-13 are pending. Claims 1 and 6 are independent.

Rejection under 35 U.S.C. §103 - Crowne et al.

Claims 1, 4, 6, and 9 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Crowne et al. (U.S. Patent No. 5,723,870, "hereinafter Crowne"). Applicants respectfully traverse.

As shown above, the claims have been amended to better define the subject invention. The newly cited Crowne reference teaches an apparatus comprising a float with a magnetic element and a magnetic sensor for sensing the position of the float. The float is allowed to rise and fall with the level of fuel contained in an airliner fuel tank. The fuel level is determined by reading the position of the float using a handheld device.

This is not the same as the subject invention. As defined by independent claims 1 and 6, the subject invention is directed to a time of flight ranging level measurement system. Such systems are characterized as non-contactive systems and use reflected (i.e.,

echo) energy pulses to determine the distance to the surface of a liquid or granular material.

It is submitted that based on the significant differences between the two types of systems, one skilled in the art would not be lead to modify Crowne. Even if one skilled in the art were to attempt to modify the teachings of Crowne, the resulting system would not be a time of flight ranging level measurement system as defined by claims 1 and 6. Therefore, a *prima facie* basis for obviousness has not been established.

Accordingly, claims 1 and 6 are distinguishable over Crowne. Claims 4 and 9 depend from independent claims 1 and 6. Therefore, these dependent claims are also distinguishable over Crowne for at least the reasons stated above with respect to claims 1 and 6.

Applicants respectfully request withdrawal of the rejection of claims 1, 4, 6, and 9 under 35 U.S.C. §103(a) based on Crowne.

Rejection under 35 U.S.C. §103(a)- Crowne, Pennisi

Claims 2 and 7 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Crowne in view of Pennisi et al. (U.S. Patent No. 5,313,365, "hereinafter Pennisi"). Applicants respectfully traverse.

It is noted that claims 2 and 7 depend from independent claims 1 and 6. It has been shown above that claims 1 and 6 are distinguishable over Crowne for at least the reasons stated above. Pennisi has not been, and indeed cannot be, relied upon to correct at least this deficiency of Crown. Therefore, claims 1 and 6 are distinguishable over the combination of Crowne and Pennisi.

Due at least to their dependencies, claims 2 and 7 are also distinguishable over the combination of Crowne and Pennisi for at least the reasons stated with respect to claims 1 and 6, as well as on their own merits.

Further, it is noted that the epoxy encapsulation according to the present invention serves to provide a barrier against sparking. Nowhere in the Pennisi reference is there such a teaching. Rather, Pennisi teaches the use of epoxy encapsulation to protect a circuit, not the surrounding environment. It is, therefore, submitted that there is no suggestion for one skilled in the art to combine the teachings of Pennisi with Crowne; therefore, a *prima facie* basis for obviousness has not been established.

Applicants respectfully request withdrawal of the rejection of claims 2 and 7 under 35 U.S.C. §103(a) based on Crowne and Pennisi.

Rejection under 35 U.S.C. §103(a) - Crown, Pennisi, Nakano

Claims 3 and 8 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Crowne in view of Pennisi and further in view of Nakano et al. (U.S. Patent No. 5,166,238, "hereinafter Nakano"). Applicants respectfully traverse.

It is noted that claims 3 and 8 depend, respectively, from claims 2 and 7, which in turn depend, respectively, from independent claims 1 and 6. It has been shown above that claims 1 and 6 are distinguishable over Crowne and that Pennisi does not cure at least the above-noted deficiencies of Crowne. Nakano has not been, and indeed cannot be, relied upon to correct at least these deficiencies of Crown and Pennisi. Therefore, claims 1 and 6 are distinguishable over the combination of Crowne, Pennisi, and Nakano.

Due to at least their dependencies, claims 3 and 8 are also distinguishable over the combination of Crowne, Pennisi, and Nakano for at least the reasons stated with respect to claims 1 and 6, as well as on their own merits.

Applicants respectfully request withdrawal of the rejection of claims 3 and 8 under 35 U.S.C. §103(a) based on Crowne, Pennisi, and Nakano.

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Rejection under 35 U.S.C. §103(a) - Crown, Leon

Claims 5 and 10 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable in view of Leon et al. (U.S. Patent No. 6,097,306, "hereinafter Leon"). Applicants respectfully traverse.

It is noted that claims 5 and 10 ultimately depend from independent claims 1 and 6, respectively. As noted above, it has been shown that claims 1 and 6 are distinguishable over Crowne. Leon has not been, and indeed cannot be, relied upon to correct at least the above-noted deficiencies of Crowne and Leon. Therefore, claims 1 and 6 are distinguishable over the combination of Crowne and Leon.

Due to at least their dependencies, claims 5 and 10 are also distinguishable over the combination of Crowne and Leon for at least the reasons stated with respect to claims 1 and 6, as well as on their own merits.

Applicants respectfully request withdrawal of the rejection of claims 5 and 10 under 35 U.S.C. §103(a) based on Crowne and Leon.

New Claims

Claims 11-14 have been added through this reply. All new claims are believed to be distinguishable over the cited references,

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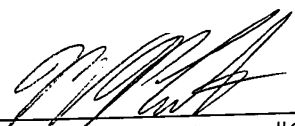
individually or in any combination. Applicants respectfully request that new claims 11-14 be allowed.

CONCLUSION

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance. In the event of any outstanding matters, however, the Examiner is respectfully requested to contact Hyung Sohn (Reg. No. 44,346), in an effort to expedite prosecution.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to debit Deposit Account No. 02-2448 for any additional fee required under 37 C.F.R. \$1.16 or \$1.17, particularly extension of time fees, or to credit said Deposit Account for any overpayment of fees.

Respectfully submitted,
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